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THE RURAL HOT LUNCH AND THE NUTRITION OF THE RURAL CHILD

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Experiments have shown that the nutritive requirements of children are high: a growing girl may need more food than her mother needs, and a growing boy's food requirements may exceed those of his father. Since the energy expenditure is a large factor in determining the total food requirement, those children whose energy expenditure is greater, other things being equal, will require a greater amount of food. The child who has manual tasks to perform at home, who walks a long distance to and from school and after school again does manual work, must necessarily need more food than does the child who has no duties at home and who either lives near his schoolhouse or has easy access to it by cars. Rural children, therefore, under these circumstances must necessarily have a relatively high food requirement. Three substantial meals a day should be supplied to satisfy their needs. Fortunate is the child who receives an adequate breakfast, a substantial dinner and a suitable supper; whose food not only is adjusted to his digestive capacity, but is eaten under circumstances that promote and not hinder digestion.

Three substantial meals a day — and yet how may this ideal be accomplished, if the child must carry his noon meal to school in a box? The food in a lunch box is almost necessarily cold and concentrated; yet digestion is facilitated by warmth and dilution. Eating a box lunch is in a sense a solitary process; yet digestion is favored by pleasant social intercourse. Nor are the children the only ones who suffer from the cold lunch; the teacher after a taxing morning session, finds little in her lunch box that stimulates appetite

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and induces relaxation. A midday meal of cold food, eaten five days a week, throughout the school year is almost certain to have a harmful effect on the health of both teacher and children.

To improve the character of the noon meal, the practice of preparing at school one hot dish is rapidly growing. The teachers who have tried it are enthusiastic about its results, and say that:

1 The children are more attentive in the afternoon.

2 The noon hour is much easier for the teacher; even one hot dish has a soothing effect, and teacher and pupils sit down to a quiet social meal.

3 It affords the tactful teacher an opportunity to make suggestions concerning the kinds of foods children should bring in their lunch boxes from home. She may announce the hot dish for the next day, and then advise the children regarding the food that will be good supplements to that hot dish. Many lessons in nutrition may thus be taught.

4 Children who at home are allowed to cultivate likes and dislikes in regard to food, at school learn to eat what the other children are eating. Having acquired a taste for these foods at school the children ask for them at home; thus the influence spreads from the school to the home.

5 The tactful teacher will also be able to train the children into habits of consideration for others and the observance of the usual forms of good table manners.

6 When there are foreign-born children in the rural school, the noon lunch becomes a method for teaching them American cooking. On the other hand, the foreign-born may enrich our knowledge of cookery by teaching us their own methods of preparing food.

The food prepared in school should be simple in character in order that it may be eaten by the younger as well as by the older children. Milk should be used very frequently as it is rich in building material. The recipe selected should be such as may be prepared in a short time and with the limited equipment available in a rural school. The following recipes are suggested. It is expected that only one hot dish will be prepared each day. Even such a simple food as a cup of hot cocoa will be a most welcome and valuable addition to the child's lunch, and will be relished by the children day after day. As the teacher organizes her work, however, and as the pupils become more skilled in assisting her, she will become ambitious to

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introduce some of the other dishes. The following abbreviations are used:

c. = cup or cups
tb. = tablespoon
t. = teaspoon
qt. = quart
lb. = pound

Measures:
3 t. = 1 tb.
16 tb. = 1 cup (dry measure)

The quantities specified will serve 24 children.

Recipes

Cocoa

¾ c. cocoa
¾ c. sugar
1 t. salt
1 quart water
4 quarts milk

Heat the milk in a pan on the asbestos mat. Mix together the cocoa, sugar and salt. Boil the water. Add the cocoa, sugar and salt mixture slowly to the boiling water. Boil three or four minutes. Stir to prevent burning. Add the hot milk.

Corn soup

corn, canned	8 c.	butter	20 tb.
water	1 qt.	salt	2 tb.
milk	4 qts.	pepper	½ t.
flour	20 tb.	onion	½ small onion sliced

Let corn and water simmer for 20 minutes. Press through coarse strainer. Place onion in milk and set on asbestos mat to scald. Remove onion from scalded milk. Melt butter in pan, add flour and seasonings and stir till smooth. Add the scalded milk gradually and when well blended, cook in the double boiler for half an hour. Add the strained corn and serve.

Peanut butter soup

milk	4 qts.	salt	1 tb.
peanut butter	2 c.	pepper	1 t.
flour	1¼ c.	hot water	1 qt.

Reserve some of the milk to mix with the flour. Scald the remainder of the milk. Add the hot water to the peanut butter and stir till well blended. Add to the scalded milk. Remove some of the soup and add to it the moistened flour. Cook for a few minutes. Add to the remainder of the soup.

Pea soup (made from canned peas)

canned peas	10 c.	butter	20 tb.
water	1 qt.	flour	20 tb.
sugar	4 tb.	salt	1½ tb.
milk	4 qts.	pepper	½ tb.
onion	½ small onion sliced		

Place the onion in the milk and set the milk on the asbestos mat to scald. Drain the peas. Simmer in the water with the sugar for about five minutes. Press through strainer. Remove the onion from the milk. Melt butter in pan, add flour and seasoning and stir till smooth. Add the scalded milk gradually and when well blended, cook in the double boiler for half an hour. Add the strained peas and serve.

Pea soup (made from dried peas)

dried peas	5 c.	flour	8 tb.
cold water	9 qts.	butter	8 tb.
salt pork or bacon	½ lb.	salt	2 tb.

Wash dried peas carefully. Soak overnight in half of the water. In the morning add the remainder of the 9 quarts of water, add the pork or bacon and simmer 3 hours. Remove pork or bacon and press peas through sieve. Melt butter, add flour and blend. Add small quantity of the soup to the butter and flour and boil for a few minutes. It will be necessary to stir constantly to prevent burning. Then add to the remainder of the soup. Season with the salt.

Potato soup

milk	5 qts.	salt	2½ tb.
onion	1 sliced	pepper	½ t.
butter	10 tb.	potatoes, medium size	15 or 16
flour	10 tb.		

Wash and pare potatoes. Dice them. Cook in boiling salted water for 20 minutes. Drain, press the potatoes through a strainer. Place milk in pan with onion to scald on the asbestos mat. After milk is scalded, remove onion. Melt butter in pan, add flour and seasonings and stir till smooth. Add the scalded milk gradually and when well blended, cook in the double boiler for half an hour. Add the strained potatoes and serve.

Chopped parsley is a pleasing addition to potato soup. Parsley may be grown in a window box at school. It is an ornament to the room as well as a garnish for food.

Tomato soup

tomato pulp	2½ qts.	flour	1¼ c.
sugar	4 tb.	butter	1¼ c.
bay leaf	1	salt	1½ tb.
baking soda	½ t.	pepper	½ t.
milk	2½ qts.		

Cook tomatoes, sugar and bay leaf together for about 20 minutes. Press through strainer. Add soda. Melt butter in pan, add flour and seasonings and stir till smooth. Add the scalded milk gradually and when well blended, cook in the double boiler for half an hour. Add the strained tomatoes and serve.

Creamed toast

bread	24 slices	flour	8 tb.
milk	2 qts.	salt	2 t.
butter	8 tb.	pepper	¼ t.

Toast the bread. Melt the butter in a pan, add the flour and seasonings and stir till smooth. Add the scalded milk gradually and when well blended, cook in the double boiler for half an hour. Pour one-third of a cup over each slice of toast.

Scrambled eggs

eggs	24	pepper	½ t.
milk	1½ c.	butter	6 tb.
salt	3 t.		

Beat the eggs until the yolks and whites are well mixed, add the milk and seasoning. Three pans will be needed for this quantity of eggs. Heat the pans, remove from the fire and add 2 tablespoons of butter to each pan. When the butter has melted, pour in the egg mixture; cook slowly. Scrape the mixture from the bottom of the pan as it cooks. Cooking over a heat that is too intense or cooking continued for too long a time renders the eggs tough.

Spanish rice

rice	2 c.	butter	8 tb.
tomatoes	8 c.	onion	1 small
sugar	4 tb.	salt	2 t.
flour	8 tb.	pepper	½ t.

Boil the rice in a large volume of water for 20 minutes. Drain off all the water. Cook the tomato, onion and sugar until the tomato is soft; about 20 minutes will be required. Strain. Melt the butter in a pan, add the flour, salt and pepper and stir until smooth, add the tomato juice to the butter and flour, and cook until thick. Add the rice and reheat.

Baked potatoes

Wash a potato for every child. Place in a hot oven and bake for 45 minutes. When baked, prick with a fork to allow the steam to escape.

Sweet potatoes as well as white potatoes may be baked.

Creamed vegetables

Carrots, peas, celery, turnips, potatoes and onions may be served with a white sauce. The vegetables should be washed, pared, cut into small pieces and cooked till soft. From one-third to one-half of a cup makes a good serving. Pour equal quantity of white sauce over the vegetables.

White sauce

milk	2 qts.	salt	2 t.
flour	8 tb.	pepper	¼ t.
butter	8 tb.		

Place the milk in a saucepan on the asbestos mat to scald. Melt butter in pan, add flour and seasonings and stir till smooth. Add the scalded milk gradually and when well blended cook in the double boiler for half an hour. Pour the white sauce over the cooked vegetables.

Creamed macaroni may also be made by allowing for each child, one-quarter of a cup of macaroni broken into inch pieces. Boil the macaroni in boiling salted water for 25 minutes. Drain off all the water. Pour the white sauce over it.

On warm days, one may add to the attractiveness and value of the school lunch by preparing a dessert to be served cold. The following recipes are suggested.

Soft custard

milk	2 qts.	salt	½ t.
eggs	8	vanilla	2 t.
sugar	1 c.		

Scald the milk. Add the sugar to the milk and stir till dissolved. Beat eggs slightly, and add the salt. Pour the hot milk gradually into the beaten eggs. Cook in double boiler. Stir constantly until the mixture coats the spoon. Remove immediately from the heat and pour into a cool dish. After the custard has cooled add the vanilla. This custard when cold may be poured over lady fingers and an appetizing and nutritious dessert is produced.

Junket

milk	3 qts.	junket tablets	3
sugar	12 tb.	vanilla	3 tb.

Crush the junket tablets in about 3 teaspoons of cold water. Add the sugar to the milk and heat very carefully until lukewarm. Stir to help dissolve the sugar. Pour the dissolved junket tablets into the lukewarm milk, stir, add the vanilla and pour at once into cups. It must stand in a warm room undisturbed, until it is firm. Then remove to a cool place. Just before serving, one may add to each cup a teaspoonful of grape jelly or marmalade. The pulp from stewed dates or prunes may be used in the same way.

If there is no double boiler in the equipment, the pan containing the food to be cooked may be placed in a larger pan of boiling water.

Organization of Work

If the hot lunch plan is a new one in the school district, the task of procuring the equipment will fall to the present teacher. The parents should be invited to a meeting at the schoolhouse where the hot lunch may be explained. A list of necessary utensils should be made and donations of utensils invited. Probably most of the needed articles can be secured in this way. Many school stoves used for heating are adapted to cooking also. If the school stove has no space for cooking, it will be necessary to procure a kerosene stove. Funds for this may often be raised by a school entertainment.

After the equipment is secured, the daily routine of work must be so planned as to consume as little time as possible. The foods for each of the five days should be planned a week ahead and supplies ordered in good season. The children old enough to be of real assistance should be organized into three groups: group A, cooks the food; group B, serves the food; group C, washes and dries the dishes, replaces dishes and food supplies.

Duties of group A. Study the recipe the day before it is cooked. Determine the quantities of materials needed and become familiar with the method of combining them. On the day when the food is to be cooked, measure the ingredients before school or at recess. At the required time before noon, start the cooking of the food; keep it warm until ready to serve.

Duties of group B. Serving may be done in either of two ways: (1) children may remain in their seats while the servers pass the cooked food to them; (2) children pass before the serving table where each one receives his portion and carries it to his seat. The second plan is the better one if the school is large.

Duties of group C. Have hot water ready at the end of the meal; scrape all the dishes, stack them; then place the hot water in two dish pans. Wash the dishes in one dish pan using soap; do not waste the soap by allowing it to remain unnecessarily long in the water. As each dish is washed place it in the second pan of hot water. When the second pan of hot water is filled with dishes, place it on the stove and allow the water to boil around the dishes for about 5 minutes; this is for the purpose of sterilization. Then dry the dishes. Clean the tables and rinse out the dish towels and dish cloths in hot water and hang in the sun to dry. Once a week the towels and dish cloths should be laundered; some of the children should take them home for this purpose.

A fireless cooker may be used with advantage in preparing many foods. The principle upon which the use of the fireless cooker is based, is that food when heated will retain its heat for a long time, if it is surrounded by materials that are poor conductors of heat. The teacher should send to the Division of Publications, United States Department of Agriculture, for Farmers Bulletin 771, "Home-made Fireless Cookers and Their Use." It may be obtained free of cost.

Distribution of Cost

Whenever possible the children should bring from home the foods needed for the hot dishes. Each child should bring milk when cocoa is to be made; he should bring an egg when scrambled eggs are to be prepared; a potato when baked potatoes are to be served, etc. It is more practicable for the teacher to provide the cocoa, sugar, etc., and to divide the cost for these and for the fuel among the pupils.

Food Values of Milk

There should be a liberal use of milk in the child's dietary; not only is milk easy of digestion but it is richly supplied with building material and also contains the growth promoting substances. It is in addition a good source of energy. The following chart will explain by means of comparison with other foods two of the nutritive properties of milk — its energy and its calcium. *Children should be encouraged to take one quart of milk a day.* If each of the three meals contains one cup of milk and if a light lunch of milk and a sandwich after school be provided at home, the quart of milk will have been drunk. It is quite desirable therefore that the noon lunch very frequently contain one cup of milk per child.

SOME FOOD VALUES OF MILK

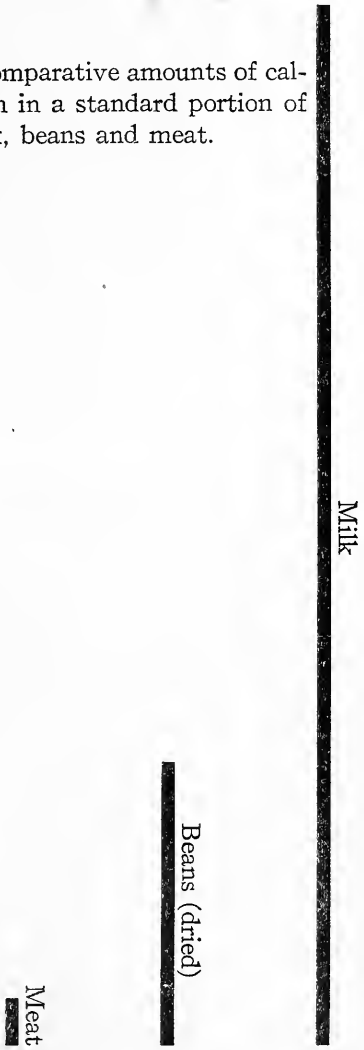
Energy Value

1 quart of milk yields 675 Calories for energy.

It requires 1 lb. lean beef or 1 lb. lean lamb or 2 lbs. fresh codfish or 9 eggs to give the same amount of energy.

Calcium Value

The comparative amounts of calcium in a standard portion of milk, beans and meat.



How often one finds rural children who refuse to drink milk. Does the rural child associate milk with the barns which are sometimes in an insanitary condition? Does his dislike for it arise from the fact that the milk which is given him is often slightly sour owing to the lack of ice? Though the children decline to drink milk, their need for it continues. They must be taught to realize the necessity for a plentiful and frequent use of cream soups (made with milk), or rice and tapioca pudding (made with milk), or cocoa, junket etc.

Equipment

A suggested list of equipment includes:

Shelf for holding lunch boxes.

Cupboard. One may be inexpensively made from a dry-goods packing box, the top surface of which is also used as a table: or, the underside of a kitchen table may be inclosed with boards and a shelf placed in the inclosed space. All foods and cooking utensils must be protected from dust.

Containers for holding groceries. Mason jars may be used for this purpose.

Stove. If a kerosene stove is used, it must be cleaned daily, and precautions taken against accidents by fire.

Utensils used for cooking and cleaning:

2 saucepans
1 double boiler
1 measuring cup
1 strainer
1 egg beater
1 wooden spoon
1 paring knife
1 kitchen fork
1 can opener
1 tablespoon
1 teaspoon
1 quart measure
1 soup ladle
1 spatula
1 tray
1 mixing bowl
1 frying pan
2 dish pans
1 soap dish
1 asbestos mat
dishtowels and dishcloths

The pupils may bring from home their individual cup, plate, knife, fork and spoon.

The Lunch Box

The success of a box lunch depends partly on the kind of box used to hold it. A metal box of simple construction is the most sanitary, as it may be easily and thoroughly washed. If a tin pail is used, it should have perforations for ventilation.

The food in the lunch box should be carefully packed. There should be jars with screw tops or jelly glasses with tightly fitting covers for the liquid or semisolid food. All sandwiches, cookies etc. should be separately and securely wrapped in paraffin paper.

The box should be firmly packed and the heaviest articles placed on the bottom. There should be two napkins; one to serve as tablecloth on the child's desk, the other for his personal use while eating. When the child reaches school in the morning, his lunch box should be placed on the lunchbox shelf where it should remain until noon. The children under eight years of age and undernourished children (as explained elsewhere in this pamphlet) may have at recess time an extra feeding of bread and milk; but the practice of allowing other children to eat their lunch at the morning recess is to be strongly condemned.

The foundation of the school lunch must be sandwiches. Bread is nutritious and easy of digestion. Its flavor is so neutral that one does not tire of it. It makes a good background for the numerous kinds of filling. It is inexpensive. The bread used for sandwiches should be one day old and the slices should be evenly cut. The butter spreads more easily if it is creamed. One may cream butter by mixing it with a spoon or placing it in a warm oven for a few minutes. When both sides of the sandwich are spread with butter, there is less possibility of absorption of the filling.

There is a wide variety in the kind of bread that may be used for sandwiches: brown, date, graham, nut, oatmeal, raisin, rye and white. There is also a wide choice possible for the filling. The following kinds of filling are suggested:

Meats. Tender meat should be sliced thin. Tough meat should be ground in food chopper and moistened with salad dressing or with cream and rubbed to a paste; chopped celery is a good addition.

Fish. Creamed salmon, canned sardines freed from bones or tuna fish mixed to a paste with salad dressing or with lemon juice. Chopped celery is a good addition.

Eggs. Cooked hard, minced and moistened with salad dressing or cream.

Nuts. Chopped and mixed with dates, or figs or cottage cheese; or ground to a paste, as in peanut butter.

Cheese. Hard cheese should be used in slices, or grated. Soft cheese, such as cottage cheese or cream cheese, may be used alone or combined with chopped pimentos or olives or nuts.

Jelly or marmalade. Should be used in small quantities as very sweet food is apt to irritate the stomach of young children.

Dates, figs, raisins. May be ground to a paste, and moistened with cream or with fruit juice.

Lettuce or chopped celery. Used with salad dressing.

Suggestions for the Noon Lunch

The teacher in discussing the food requirements for children will often be asked to recommend suitable lunches. A series of six lunches is here presented: the food prepared at school is printed in italics. The absence of pie is to be noted; the only cake used is sponge cake and cookies. Relishes, such as nuts and celery, are frequently used. Dates and milk chocolate also add to the attractiveness of the lunch. Milk appears in some form in each lunch.

1

Cream of pea soup

Raisin and nut sandwiches
Apple
Sponge cake

2

Cream of tomato soup
Sardine sandwiches
Prunes stuffed with cottage cheese
Milk chocolate

3

Meat sandwiches
Celery
Tomatoes and rice
Canned berries and graham crackers
Cup of milk

4

Boston brown bread sandwiches with cottage cheese filling
Dates
Apple sauce
Cocoa

5

Cream of potato soup (parsley)
Peanut butter sandwiches
Stewed figs

6

Scrambled eggs
Cup of milk
Celery sandwiches
Salted peanuts
Orange
Molasses cookie

The lunch of children under eight years of age should be very simple: it may consist of cocoa or cream soups; simple bread and butter sandwiches; and cooked fruit. They should have a mid-morning feeding of bread and milk and, if they remain in school until 4 o'clock, it is quite desirable that they have another similar feeding in the middle of the afternoon session.

The Day's Meals

The noon lunch is only one of the required daily meals. However satisfactory it is, it must be preceded by an adequate breakfast and followed by a suitable evening meal. For the children who manifest hunger about 4 o'clock and whose evening meal cannot be served until 6 or 6.30 o'clock, an after-school lunch of bread and milk or cocoa and a sandwich should be provided at home.

Instruction should be given to all school children regarding their food requirement. The instruction given to the rural child should be based on an understanding of the conditions under which he lives. As previously stated, his energy expenditure is relatively

large: yet he is only a child and has only a child's digestive power. Moreover, seated at the same table with him are the adult members of the household who are generally engaged in heavy work. Their maturity and their active out-of-door life, however, tend to develop in them sturdy digestive powers, and to enable them to digest food that is complex in nature. Familiarity with farm homes quickly convinces one that the food on the table satisfies the *taste* of the adults rather than the *needs* of the children. How often the dessert is pie; how frequently, rich cake with heavy icing is offered to the sensitive stomachs of little children. The average mother, of course, is too busy to prepare separate menus for the children. Until the adult members of the family realize that the children's requirements should be considered first and until they are willing to adapt their own eating habits to the foods that are also suitable to children, it will be necessary to teach boys and girls that they must abstain from the rich cake and pies that their parents are eating, and to take fruit instead. The food supply of the farm home generally will permit this adaptation without imposing on the mother the extra duty of preparing a separate dessert for the children. In the autumn months the fresh fruit is available; in the spring and winter months canned fruit and berries may be used, and of these the farm home usually has an abundance. For the growing child a dessert of canned pears and graham crackers or other hard cookie is immeasurably superior to cake and pie.

Nor is the dinner the only meal needing censorship. How common is the practice of permitting boys and girls of tender years to consume towering piles of pancakes — soft pancakes, dripping with rich syrup and swallowed with scarcely any mastication. How preferable is hard crisp toast, which requires thorough chewing, a process that benefits teeth as well as digestion. Children may be taught to prepare the toast themselves.

The teacher should tell her pupils that their breakfast is an important meal of the day. The children should prepare for breakfast intelligently, first, by developing an appetite by means of sufficient sleep in well-ventilated rooms; secondly, by arising early enough to have ample time for eating. The breakfast should consist of:

Fruit — either fresh or cooked dried fruit.

Cereal — well-cooked oatmeal, cornmeal and whole wheat should be used frequently.

Toast and butter — whole wheat or graham bread may be toasted as well as white bread and is richer in building material.

Milk — may be given warm or made into a cup of cocoa.

The lunch when eaten at school may consist of nut or meat or cheese sandwich (simple bread and butter sandwiches for the children under eight years of age); cup of cocoa or soup; and a simple dessert such as custard or fruit and cookie. An occasional use of sweet chocolate is allowable.

The lunch after school should be a very simple one: a glass of milk and a slice of bread.

For the evening meal, cream of pea soup, egg omelet (parsley), warmed-over potatoes, stewed tomatoes, bread and butter, canned berries and graham crackers are suggested.

Good Table Manners

Eating should be considered from an esthetic as well as from a physiological viewpoint. What a welcome dinner companion is the person whose table manners are beyond reproach! How often one is judged by his behavior at table, and condemned if that behavior does not meet the generally accepted social standards. The teacher during the noon lunch is in a position to give the pupils training in the usual observances of table etiquette, which like all good manners are based on kindness and sanitation. The pupils should wash their hands before eating. They should eat slowly and masticate their food thoroughly. No matter how busy the day, an atmosphere of leisure should surround the table. One should not wash down his food with liquid such as water or cocoa or soup. One should not talk while there is food in his mouth. The drinking of liquids and the chewing of food should be a noiseless process. The knife should be used only to cut the food. The knife and fork when not in use should be placed side by side on the plate; they should also be left there at the close of the meal. The spoon should never be allowed to remain in the cup.

Nutrition and Weight

The weight of a child whose nutritional requirements are satisfied will increase steadily. *Normal weight therefore is an index of good nutrition.* Tables have been formulated giving normal weights for boys and girls of different ages and heights. These tables have been adopted by the United States Bureau of Education and by New York State Department of Education and are included in this pamphlet. It is recommended that wherever possible the children be weighed monthly, and their weight recorded on the classroom weight record chart. In a school child, a variation of a pound or

two from the normal weight may be disregarded. When, however, a child's weight is 10 per cent or more below the normal, he falls into the class of the undernourished.

As it is physically impossible for an undernourished child to develop along normal lines, a defective body structure, with its accompanying lowered resistance to disease and its impaired efficiency, is the inevitable result. Such a child is in urgent need of advice. He should be weighed weekly and his weight recorded. The teacher should question him regarding his habits. It will often be found that he is not drinking milk, that he uses tea and coffee, and does not go to bed early. Instruction should be given him regarding his food and other health habits. One quart of milk a day should be recommended to him: he must not drink tea and coffee, and must increase his hours of sleep. It may be necessary for him to take a rest period during the day time. The teacher may do more than give advice. She may make it possible for him to leave his work in the middle of the morning and the middle of the afternoon and take a supplementary feeding of a cup of milk and some bread. The child should understand that he should bring from home extra food for these supplementary feedings; that they are additional meals in his day's schedule, and in no sense is his noon lunch to be diminished because of them.

A child's health and growth are very responsive to good feeding; it is not difficult to effect a marked improvement in an undernourished child by attention to his diet. His interest in his own health is very much stimulated, however, when he sees that his efforts in health improvement are resulting in measurable gains. Hence the undernourished child should be weighed weekly. A scale in the schoolhouse becomes an instrument on which are recorded the child's achievements in health.

Height and weight table for girls

Height Inches	5 Yrs.	6 Yrs.	7 Yrs.	8 Yrs.	9 Yrs.	10 Yrs.	11 Yrs.	12 Yrs.	13 Yrs.	14 Yrs.	15 Yrs.	16 Yrs.	17 Yrs.	18 Yrs.
39.....	34	35	36											
40.....	36	37	38											
41.....	38	39	40											
42.....	40	41	42	43										
43.....	42	42	43	44										
44.....	44	45	45	46										
45.....	46	47	47	48	49									
46.....	48	48	49	50	51									
47.....	.....	49	50	51	52	53								
48.....	.....	51	52	53	54	55	56							
49.....	.....	53	54	55	56	57	58							
50.....	.....	.....	56	57	58	59	60	61						
51.....	.....	.....	59	60	61	62	63	64						
52.....	.....	.....	62	63	64	65	66	67						
53.....	.....	.....	.....	66	67	68	68	69	70					
54.....	.....	.....	.....	68	69	70	71	72	73					
55.....	.....	.....	.....	.....	72	73	74	75	76	77				
56.....	.....	.....	.....	.....	76	77	78	79	80	81				
57.....	.....	.....	.....	.....	.....	81	82	83	84	85	86			
58.....	.....	.....	.....	.....	.....	85	86	87	88	89	90	91		
59.....	.....	.....	.....	.....	.....	89	90	91	93	94	95	96	98	
60.....	.....	.....	.....	.....	.....	.....	94	95	97	99	100	102	104	106
61.....	.....	.....	.....	.....	.....	.....	99	101	102	104	106	108	109	111
62.....	.....	.....	.....	.....	.....	.....	104	106	107	109	111	113	114	115
63.....	.....	.....	.....	.....	.....	.....	109	111	112	113	115	117	118	119
64.....	.....	.....	.....	.....	.....	.....	.....	115	117	118	119	120	121	122
65.....	.....	.....	.....	.....	.....	.....	.....	117	119	120	122	123	124	125
66.....	.....	.....	.....	.....	.....	.....	.....	119	121	122	124	126	127	128
67.....	.....	.....	.....	.....	.....	.....	.....	.....	124	126	127	128	129	130
68.....	.....	.....	.....	.....	.....	.....	.....	.....	126	128	130	132	133	134
69.....	.....	.....	.....	.....	.....	.....	.....	.....	129	131	133	135	136	137
70.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	134	136	138	139	140
71.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	138	140	142	143	144
72.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	145	147	148	149

Prepared by Dr Thomas D. Wood

About what a *girl* should gain each month

AGE		AGE	
5 to 8.....	6 oz.	14 to 16.....	8 oz.
8 to 11.....	8 oz.	16 to 18.....	4 oz.
11 to 14.....	12 oz.		

Weights and measures should be taken without shoes and in only the usual indoor clothes..

Height and weight table for boys

Height Inches	5 Yrs.	6 Yrs.	7 Yrs.	8 Yrs.	9 Yrs.	10 Yrs.	11 Yrs.	12 Yrs.	13 Yrs.	14 Yrs.	15 Yrs.	16 Yrs.	17 Yrs.	18 Yrs.
39	35	36	37											
40	37	38	39											
41	39	40	41											
42	41	42	43	44										
43	43	44	45	46										
44	45	46	46	47										
45	47	47	48	48	49									
46	48	49	50	50	51									
47	.....	51	52	52	53	54								
48	.....	53	54	55	55	56	57							
49	.....	55	56	57	58	58	59							
50	.....	.....	58	59	60	60	61	62						
51	.....	.....	60	61	62	63	64	65						
52	.....	.....	62	63	64	65	67	68						
53	.....	.....	.....	66	67	68	69	70	71					
54	.....	.....	.....	69	70	71	72	73	74					
55	.....	.....	.....	.....	73	74	75	76	77	78				
56	.....	.....	.....	.....	77	78	79	80	81	82				
57	.....	.....	.....	.....	.....	81	82	83	84	85	86			
58	.....	.....	.....	.....	.....	84	85	86	87	88	90	91		
59	.....	.....	.....	.....	.....	87	88	89	90	92	94	96	97	
60	.....	.....	.....	.....	.....	91	92	93	94	97	99	101	102	
61	.....	.....	.....	.....	.....	.....	95	97	99	102	104	106	108	110
62	.....	.....	.....	.....	.....	.....	100	102	104	106	109	111	113	116
63	.....	.....	.....	.....	.....	.....	105	107	109	111	114	115	117	119
64	.....	.....	.....	.....	.....	.....	.....	113	115	117	118	119	120	122
65	.....	.....	.....	.....	.....	.....	.....	.....	120	122	123	124	125	126
66	.....	.....	.....	.....	.....	.....	.....	.....	125	126	127	128	129	130
67	.....	.....	.....	.....	.....	.....	.....	.....	130	131	132	133	134	135
68	.....	.....	.....	.....	.....	.....	.....	.....	134	135	136	137	138	139
69	.....	.....	.....	.....	.....	.....	.....	.....	138	139	140	141	142	143
70	.....	.....	.....	.....	.....	.....	.....	.....	.....	142	144	145	146	147
71	.....	.....	.....	.....	.....	.....	.....	.....	.....	147	149	150	151	152
72	.....	.....	.....	.....	.....	.....	.....	.....	.....	152	154	155	156	157
73	.....	.....	.....	.....	.....	.....	.....	.....	.....	157	159	160	161	162
74	.....	.....	.....	.....	.....	.....	.....	.....	.....	162	164	165	166	167
75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	169	170	171	172
76	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	174	175	176	177

Prepared by Dr Thomas D. Wood

About what a *boy* should gain each month

AGE		AGE	
5 to 8	6 oz.	12 to 16	16 oz.
8 to 12	8 oz.	16 to 18	8 oz.

Good nutrition directly or indirectly depends on a variety of conditions: an adequate supply of suitable food; sufficient sleep in well-ventilated rooms; exercise in the open air; avoidance of activity that is exhausting; freedom from obstruction in the respiratory passage, and good teeth. Of these, the largest single factor is an adequate supply of suitable food. Children must be taught that their bodies are literally made from the food they eat: that a body can be no stronger than the foods that build it. Therefore during the period of growth the foods that are rich in building material must be abundantly supplied. Limitation of space does not permit an explanation of the chemistry of food or of the principles of nutrition. One may confidently state, however, that that child is well nourished whose health habits are good and whose daily meals

are built on a foundation of milk (1 quart a day) eggs, cereals (whole cereals to be used frequently), vegetables, fruits, with a moderate use of meat and fish; from whose diet tea and coffee are excluded, and whose digestive tract is protected against the injurious effects of rich pastry and hot breads.

Feed a growing child properly and you have helped to make a good citizen. Every child has the right to a useful body and mind, but in order to have either he must be given the right kind of food at the proper time.— *Dr Mary Swartz Rose*

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